

DEAR SIR,

Tavern Street, Ipswich, Suffolk.

We have in our Wet Salt-water Dock a species of Hydroid Polype which I have not met with in any publication that I have had an opportunity of referring to. It differs materially from the common species of our freshwater ponds in its body being less capable of extension, and in its having when mature from sixteen to twenty-one extensile tentacles around its disc, in the centre of which, and rising considerably above the surface, when protruded, is a singularly and beautifully organized four-lobed mouth: the instant adaptation of its opening to the incurving tentacles, and its effective closing thereon when they are introduced into the cavity, are operations of the most interesting character. Around the base of the mouth, and equidistant from each other, are four oviform orifices, corresponding with the four projecting lobes of the mouth and extending to the base of the nearest tentacle, giving to the disc somewhat the appearance of a flower with a four-cleft corolla.

The incipient gemmation of this polype is spurlike and acute, upon which the young polype is formed: in some instances this spur or offshoot terminates in a little bulb, presenting the appearance of a simple pistil of a plant having its stigma at the extremity and the germen at its base: upon offshoots of this latter form we have not at present noticed any young.

I observed, previous to the death of this little creature, that the tentacles became incurved, and, at such times, substances floating over the orifice of the disc obtained a rotatory motion as if operated upon by cilia.

Believe me to remain, &c.,

EDWIN GILES.

IV.—On *Odontites rubra*, Pers., and the allied forms, including a notice of a new species. By JOHN BALL, M.R.I.A.

THIS attempt to clear up the confusion which seems to exist as to the forms of the group of plants which were known to the older botanists under the name of *Euphrasia Odontites*, L., is subject to great disadvantage, being chiefly founded upon the examination of dried specimens, from which it is very difficult to determine the true form and structure of the corolla and anthers, the organs from which the most important specific characters are derived. I may observe in the first place, that some of the characters used by authors appear to me altogether fallacious; thus I find the relative length of the floral leaves, and the breadth of the segments of the lower lip of the corolla to vary in all the forms of this group. I proceed to point out by brief diagnostic characters the forms with which I am acquainted.

Odontites verna, Reich. (*O. rubra*, Pers. and Benth. in D.C. Prod.)—Stem erect, branching, obsolete tetragonous, hispid with reflexed hairs, from 6 to 20 inches in height; leaves sessile, lanceolate, narrowed from near the base, and usually bluntish, remotely serrate, lower leaves elongated, those of the secondary branches and flowering spike with few—2—4—teeth, the last remote from the upper extremity of the leaf; flowers shortly pedunculate, usually shorter than the floral leaves; calyx segments equal to the tube in length, lanceolate, rather acute; corolla about twice as long as the calyx, pubescent, upper lip slightly convex, suberose, lower lip with three roundish oblong obtuse lobes, the middle lobe somewhat longer and broader than the others; filaments hairy, nearly equaling the length of the corolla; anthers transverse, with a few glandular hairs, included in or slightly protruding from the upper lip of the corolla; capsule oblong, hairy, when ripe equaling or slightly exceeding the calyx; style filiform; stigma minute, capitate, hairy; seeds oblong furrowed.

Common throughout Europe.

O. verna var. *elegans*, nobis. (*O. serotina*, Reich. non Bert.)—Leaves narrowed at the base, almost linear; flowers with longer peduncles; corolla rather smaller, lower lip with three linear-oblong, nearly equal segments; anthers slightly exerted.

I possess this form from Buda in Hungary, and from Persia (Kotschy, *Plantæ Persiæ Borealis*, 693). I gathered it on the Wynd Cliff near Chepstow, on the 30th of August, 1848. From the observations of Reichenbach it is clear that this and not the following form is that intended by him (*Flora Exc. num.* 2450). It is probable that this is likewise the plant known to Mr. Bentham: I altogether concur in the propriety of uniting it to the preceding, as has been done by that eminent botanist (D.C. Prod. x. 551).

Odontites Bertolonii, nobis. (*Bartsia serotina*, Bert.)—Stem as in *O. verna*, seldom exceeding 12 inches in height, branches usually more numerous and shorter; leaves very shortly petiolate, much smaller than in *O. verna*, ovato-lanceolate, teeth more acute and much more approximate; calyx rather less deeply divided; corolla with a rather shorter tube, lobes of the lower lip nearly equal; anthers slightly exerted; ripe capsule much smaller than in *O. verna*.

Though perhaps rather difficult to define by written characters, this form appears to me fully entitled to specific distinction, in which opinion I am confirmed by the positive statements of the accurate Bertoloni. The shape and size of the leaves, the

denser and more uniform inflorescence, and the constantly smaller fruit appear to supply constant characters. The exerted anthers and the shorter floral leaves are sometimes found in *O. verna* var. *elegans* above described. I have specimens from Tuscany, Umbria, Rome and Naples, the latter gathered by myself at the end of September 1845; but I have never seen any other than Italian specimens, and the plant appears to be unknown in central Europe.

In consequence of the confusion that exists as to the identity of the forms which have borne the names *Euphrasia serotina*, it appears necessary to abandon that specific name, though highly appropriate, and in that case the Italian plant cannot bear a more suitable name than that of the only author who has clearly distinguished it from its allies.

Odontites rotundata (n. sp. ?), nobis.

About ten years ago I received from Professor Henslow a specimen marked *Bartsia Odontites*? gathered near the Hague, and about the same time I was favoured with an imperfect specimen gathered on Bepton Common, Sussex, by Miss Plowden, and a specimen marked Cambridgeshire without the name of the collector. These plants appeared to me at the time to differ in many respects from the common English plant, but I was unwilling to describe them without a fuller acquaintance with the continental forms. I am now induced with some hesitation to assign to this form a distinct specific name, being unable to identify it with any of the described species. I subjoin a short description:—

Odontites rotundata.—Stem with numerous elongated branches from near the base, (in my specimens) 6–9 inches in height; leaves sessile, lanceolate, *crenato-serrate*, teeth less acute and fewer than in *O. verna*, floral leaves almost entire, equaling or (in my English specimens) shorter than the flowers; *segments of the calyx one-third of its length, broadly triangular*; corolla rather shorter than in *O. verna*, upper lip broad, convex, *including the anthers*, lower lip with three broadly rounded, nearly equal segments; filaments nearly glabrous; anthers transverse with scarcely any glandular hairs; style and stigma nearly glabrous; *capsule broadly oval, almost rounded*, when ripe longer than the calyx.

Hab. England and Holland.

In my specimens the whole plant is less hispid, with a softer pubescence than in *O. verna*. The form of the calyx and capsules, and the nearly glabrous filaments, anthers, style and stigma bring this form near to *O. lanceolata*, Reich.; but that plant, of

which I possess specimens from Bonjean the original discoverer, differs by its rigid habit, with prominent hispid nerves to the leaves and calyces, by its erect anthers, and by the form and colour of its corolla, which in the present species scarcely differs from that of *O. verna*. As far as I can judge from dried specimens, the seeds of *O. rotundata* are considerably broader than those of *O. verna*: on the whole, the characters assigned appear to justify me in proposing this well-marked form as a new species, which like so many others must await the result of continued observation and experiment before it can be finally adopted by naturalists.

V.—*Contributions to the Botany of South America.*

By JOHN MIERS, Esq., F.R.S., F.L.S.

[Continued from vol. iii. p. 451.]

ACNISTUS.

To this genus, as defined on a former occasion (Lond. Journ. Bot. iv. p. 335), I have to add another species. Subsequently (*ibid.* vii. p. 338) I alluded to the great proximity which this genus offers to *Dunalia*, and I may also add that it touches likewise upon the section *Chænesthes* of *Iochroma* on the one hand, in a manner that renders it difficult to determine whether one species of *Acnistus* belongs to this or to the former genus; on the other hand again it osculates closely upon *Brachistus*, so that *B. oblongifolius* from the length of its corolla (being twice that of its calyx) might almost be considered as an *Acnistus*: in this latter case however, as the plant has very dissimilar geminate leaves, a character peculiarly remarkable in most species of *Brachistus*, and as it presents only two, rarely more flowers in each axil, it cannot be considered as an *Acnistus*.

14. *Acnistus confertiflorus* (n. sp.);—ramulis glabris, striatis; foliis fasciculatis, oblongis, basi cuneatis, in petiolum longum gracilem attenuatis, apice obtusiusculis, supra pubescentibus, subtus fusco-tomentosis: floribus umbellato-fasciculatis, pedunculis apice incrassatis, calyceque pilosiusculis, corolla lutea, glabra, lobis acutis, marginibus tomentosis, staminibus styloque subexsertis.—Peruvia, *v. s. in herb. Lindley* (Lobb. n. 328).

In this species the leaves (including a petiole of $\frac{5}{4}$ inch long) are $2\frac{1}{4}$ inches in length and $\frac{3}{4}$ inch broad; the peduncle is 9 or 10 lines, the corolla 8 lines long: each axil usually presents four to five or six flowers, fasciculated with two to three or four young leaves, all growing out of the cicatrix of a fallen leaf of the pre-